

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1417	709/200.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/07/07 15:25
L2	11408	709/201-205.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/07/07 15:25
L3	23360	709/217-227.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/07/07 15:26
L4	869	719/311,318.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/07/07 15:26
L5	32008	I1 or I2 or I3 or I4	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/07/07 15:26
L6	84	I5 and virtual and quantization	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/07/07 15:27
S1	6630	image and distribution and virtual and server	US-PGPUB; USPAT; EPO; JPO	OR	ON	2004/11/03 15:02
S2	39	image near5 distribution same virtual and server	US-PGPUB; USPAT; EPO; JPO	OR	ON	2004/11/03 15:02
S3	0	709-201-205,224.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2004/11/03 15:02
S4	11200	709/201-205,224.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2004/11/03 15:02
S5	685	S1 and S4	US-PGPUB; USPAT; EPO; JPO	OR	ON	2004/11/03 15:17
S6	686	709/205.icls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2004/11/03 15:40
S7	4	S6 and image and camera and (remote near5 office)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2004/11/03 15:20
S8	68	QCIF and JPEG and "H.263"	US-PGPUB; USPAT; EPO; JPO	OR	ON	2004/11/03 15:20
S9	41	QCIF and JPEG and "H.263" and ITU\$7	US-PGPUB; USPAT; EPO; JPO	OR	ON	2004/11/03 15:27

## EAST Search History

S10	5	S9 and pstn and isdn	US-PGPUB; USPAT; EPO; JPO	OR	ON	2004/11/03 15:27
S11	36	S9 not S10	US-PGPUB; USPAT; EPO; JPO	OR	ON	2004/11/03 15:26
S12	7	S11 and virtual	US-PGPUB; USPAT; EPO; JPO	OR	ON	2004/11/03 15:28
S13	68	QCIF and JPEG and "H.263"	US-PGPUB; USPAT; EPO; JPO	OR	ON	2004/11/03 15:27
S14	6	S13 and pstn and isdn	US-PGPUB; USPAT; EPO; JPO	OR	ON	2004/11/03 15:27
S15	1	S14 not S10	US-PGPUB; USPAT; EPO; JPO	OR	ON	2004/11/03 15:27
S16	10	S13 and virtual	US-PGPUB; USPAT; EPO; JPO	OR	ON	2004/11/03 15:28
S17	0	("6674477").URPN.	USPAT	OR	OFF	2004/11/03 15:32
S18	4	S6 and QCIF	US-PGPUB; USPAT; EPO; JPO	OR	ON	2004/11/03 15:46
S19	5	virtual near5 office and QCIF	US-PGPUB; USPAT; EPO; JPO	OR	ON	2004/11/03 16:07
S20	0	("10297606").PN.	EPO	OR	OFF	2004/11/03 16:08
S21	0	"10297606"	US-PGPUB; USPAT; EPO	OR	OFF	2004/11/03 16:11
S22	11	"297606"	US-PGPUB; USPAT; EPO	OR	OFF	2004/11/03 16:12
S23	10	"297606"	US-PGPUB; USPAT; JPO	OR	OFF	2004/11/03 16:12
S24	1	"10-297606"	US-PGPUB; USPAT; JPO	OR	OFF	2004/11/03 16:12
S25	1	"10-297606"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/11/03 16:12

## EAST Search History

S26	23	"297606"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/11/03 16:13
S27	35	"283885"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/11/03 16:26
S28	0	ken same toshihiro same yoshihisa	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/11/03 16:26
S29	178	ken same toshihiro	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/11/03 16:27
S30	2	ken same toshihiro same tokyo	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/11/03 16:27
S31	4	(one adj office adj space).ab.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/11/03 16:28
S32	2083	709/204,205.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:16
S33	143	S32 and user near5 condition	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:05
S34	48	S32 and user near condition	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:07
S35	126	S32 and user near status	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:12

## EAST Search History

S36	1	S35 and quantization	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:15
S37	280	S32 and (partici\$5 near5 list\$5)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:16
S38	178	S32 and (partici\$5 near2 list\$5)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:16
S39	84	S32 and list adj participants	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:18
S40	8	S32 and list adj participants near5 image	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:20
S41	1	S32 and participants near5 status near5 image	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:21
S42	4	participants near5 status near5 image	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:31
S43	28	participants near5 status same image	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:32
S44	79	conference near5 status same image	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:32
S45	9	conference near5 status near5 image	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:33
S46	200	conference near5 room near5 image	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:33
S47	189	conference adj room near5 image	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:34
S48	6	conference adj room near5 image near5 status	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:34
S49	189	conference adj room near5 image	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:34
S50	97	conference adj room near2 image	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:41

## EAST Search History

S51	181	quantization near5 coefficient near5 smaller	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:41
S52	1	quantization near5 coefficient near5 smaller same conference	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:43
S53	2	smaller adj quantization adj coefficient and conference	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 16:46
S54	13	smaller adj quantization adj coefficient	US-PGPUB; USPAT; EPO; JPO	OR	ON	2005/06/21 17:11
S55	1	("6370279").PN.	USPAT	OR	OFF	2005/06/21 17:11
S56	1	("5999208").PN.	USPAT	OR	OFF	2005/06/23 17:15
S57	1	("6370279").PN.	USPAT	OR	OFF	2005/06/23 17:24
S58	1	("6064772").PN.	USPAT	OR	OFF	2005/06/24 14:28
S59	6	((("3427443") or ("3551659") or ("4819233") or ("5579520") or ("5752038") or ("5790858"))).PN.	USPAT	OR	OFF	2005/06/24 14:30
S60	7	((("5193180") or ("5247678") or ("5535329") or ("5987247") or ("6088717") or ("6112304") or ("6134559"))).PN.	USPAT	OR	OFF	2005/06/24 14:34
S61	5	((("6011918") or ("5978583") or ("5881268") or ("5675805") or ("5021947"))).PN.	USPAT	OR	OFF	2005/06/24 14:35
S62	6	((("5390329") or ("5634114") or ("6101325") or ("6199075") or ("6412019") or ("6519767"))).PN.	USPAT	OR	OFF	2005/06/24 14:37
S63	6	((("6016392") or ("6353887") or ("6473768") or ("6237079") or ("6516354") or ("5893118"))).PN.	USPAT	OR	OFF	2005/06/24 14:37
S64	1	designated adj quantization adj coefficient	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/01/02 18:30
S65	6	designat\$5 near3 quantization adj coefficient	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/01/02 18:31
S66	15	position near3 quantization adj coefficient	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/01/02 18:31
S67	0	user near3 position near3 quantization adj coefficient	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/01/02 18:31

## EAST Search History

S68	0	user near10 position near3 quantization adj coefficient	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/01/02 18:31
S69	15	position near3 quantization adj coefficient	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/01/02 18:31
S70	266	schedul\$5 near5 advertisement same server	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/01/03 12:36
S71	107	schedul\$5 near advertisement same server	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/01/03 12:37
S72	46	schedul\$5 near advertisement near10 server	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/01/03 13:03
S73	360	schedul\$5 near advertisement	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/01/03 13:05
S74	194	schedule near advertisement	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/01/03 13:05
S75	124	schedule adj advertisement	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/01/03 16:13
S76	177	gaming near5 advertisement	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/01/03 16:13
S77	17	gaming near advertisement	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/01/03 16:16
S78	47	gaming near2 advertisement	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/01/03 16:16
S79	30	S78 not S77	US-PGPUB; USPAT; EPO; JPO	OR	ON	2006/01/03 16:20
S80	1	("20020056121").PN.	US-PGPUB; USPAT	OR	OFF	2006/01/03 16:29
S81	4	scheduling near2 type same advertisement	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/01/03 16:30
S82	1	("20020092017").PN.	US-PGPUB; USPAT	OR	OFF	2006/01/03 16:34
S83	1	("6036601").PN.	US-PGPUB; USPAT	OR	OFF	2006/01/03 16:35

## EAST Search History

S84	1	("6714545").PN.	US-PGPUB; USPAT	OR	OFF	2006/01/03 16:38
S85	1	("20010034643").PN.	US-PGPUB; USPAT	OR	OFF	2006/01/03 16:40
S86	1	("6514140").PN.	US-PGPUB; USPAT	OR	OFF	2006/01/03 16:43
S87	2	((("6514140") or ("5,823,879"))).PN.	US-PGPUB; USPAT	OR	OFF	2006/01/03 16:45
S88	1	("20020056121").PN.	US-PGPUB; USPAT	OR	OFF	2006/01/03 16:51
S89	1	("20030103644").PN.	US-PGPUB; USPAT	OR	OFF	2006/01/03 16:52
S90	1	("20030200128").PN.	US-PGPUB; USPAT	OR	OFF	2006/01/03 16:53
S91	1	("20040172655").PN.	US-PGPUB; USPAT	OR	OFF	2006/01/03 16:56
S92	1	("20010032122").PN.	US-PGPUB; USPAT	OR	OFF	2006/01/03 16:57
S93	1	("20010020236").PN.	US-PGPUB; USPAT	OR	OFF	2006/01/03 16:58
S94	1	("6725460").PN.	US-PGPUB; USPAT	OR	OFF	2006/01/03 16:59
S95	1	("6502076").PN.	US-PGPUB; USPAT	OR	OFF	2006/01/03 17:05
S96	1	("5881245").PN.	US-PGPUB; USPAT	OR	OFF	2006/01/03 17:08
S97	1	("6876974").PN.	US-PGPUB; USPAT	OR	OFF	2006/01/03 17:44
S98	2	((("6876974") or ("6,446,045"))).PN.	US-PGPUB; USPAT	OR	OFF	2006/01/03 17:44



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# 1 [A Hardware/Software Reconfigurable Architecture for Adaptive Wireless Image Communication](#)

Debashis Panigrahi, Clark N. Taylor, Sujit Dey

January 2002 **Proceedings of the 2002 conference on Asia South Pacific design automation/VLSI Design****Publisher:** IEEE Computer SocietyFull text available: [pdf\(162.99 KB\)](#)[Publisher Site](#)Additional Information: [full citation](#), [abstract](#), [citations](#)

With the projected significant growth in mobile internet and multimedia services, there is a strong demand for next-generation appliances capable of wireless image communication. One of the major bottlenecks in enabling wireless image communication is the high energy requirement, which may surpass the current and future capabilities of battery technologies. Past studies have shown that the bottlenecks can be overcome by developing adaptive multimedia compression algorithms which can adapt to dyn ...

**Keywords:** Adaptive, reconfigurable architecture, image compression, wireless multimedia

## 2 [Surface light fields for 3D photography](#)



Daniel N. Wood, Daniel I. Azuma, Ken Aldinger, Brian Curless, Tom Duchamp, David H. Salesin, Werner Stuetzle

July 2000 **Proceedings of the 27th annual conference on Computer graphics and interactive techniques****Publisher:** ACM Press/Addison-Wesley Publishing Co.Full text available: [pdf\(4.61 MB\)](#)Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

A surface light field is a function that assigns a color to each ray originating on a surface. Surface light fields are well suited to constructing virtual images of shiny objects under complex lighting conditions. This paper presents a framework for construction, compression, interactive rendering, and rudimentary editing of surface light fields of real objects. Generalization of vector quantization and principal component analysis are used to construct a compressed repres ...

**Keywords:** 3D photography, function quantization, image-based rendering, light field, lumigraph, principal function analysis, surface light fields, view-dependent level-of-detail, wavelets

3

## [Image-based reconstruction of spatial appearance and geometric detail](#)





Hendrik P. A. Lensch, Jan Kautz, Michael Goesele, Wolfgang Heidrich, Hans-Peter Seidel  
April 2003 **ACM Transactions on Graphics (TOG)**, Volume 22 Issue 2

**Publisher:** ACM Press

Full text available: [pdf\(302.22 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Real-world objects are usually composed of a number of different materials that often show subtle changes even within a single material. Photorealistic rendering of such objects requires accurate measurements of the reflection properties of each material, as well as the spatially varying effects. We present an image-based measuring method that robustly detects the different materials of real objects and fits an average bidirectional reflectance distribution function (BRDF) to each of them. In or ...

**Keywords:** BRDF measurement, normal map acquisition, photometric stereo, shape from shading, spatially varying BRDFs

#### 4 A review of the fractal image compression literature



Dietmar Saupe, Raouf Hamzaoui

November 1994 **ACM SIGGRAPH Computer Graphics**, Volume 28 Issue 4

**Publisher:** ACM Press

Full text available: [pdf\(968.87 KB\)](#) Additional Information: [full citation](#), [citations](#), [index terms](#)

#### 5 Light field rendering



Marc Levoy, Pat Hanrahan

August 1996 **Proceedings of the 23rd annual conference on Computer graphics and interactive techniques**

**Publisher:** ACM Press

Full text available: [pdf\(376.59 KB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

**Keywords:** epipolar analysis, holographic stereogram, image-based rendering, light field, vector quantization

#### 6 Animation and sketching: Attention guided MPEG compression for computer animations



Rafal Mantiuk, Karol Myszkowski, Sumanta Pattanaik

April 2003 **Proceedings of the 19th spring conference on Computer graphics**

**Publisher:** ACM Press

Full text available: [pdf\(156.78 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

In this paper we present a framework that aims at delivering high-quality and low-bandwidth 3D animation at real-time rates. In this framework we combine a real-time rendering, MPEG--4 video compression and a model of visual attention. We use the attention model to control quality/bit-rate of MPEG compression across a single frame. OpenGL is used to generate animation sequences in real-time.

**Keywords:** MPEG, streaming, video compression, virtual environment, visual attention

#### 7 Radiographic image compression: a neural approach

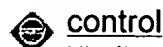


Sridhar Narayan, Edward W. Page, Gene A. Tagliarini

May 1991 **Proceedings of the conference on Analysis of neural network applications**

**Publisher:** ACM Press

Full text available: [pdf\(1.10 MB\)](#) Additional Information: [full citation](#), [references](#), [index terms](#)

8 Exploiting Video: Panoramic video capturing and compressed domain virtual cameracontrol

Xinding Sun, Jonathan Foote, Don Kimber, B. S. Manjunath

October 2001 **Proceedings of the ninth ACM international conference on Multimedia****Publisher:** ACM PressFull text available: [pdf\(1.86 MB\)](#)Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

A system for capturing panoramic video and a novel method for corresponding compressed domain virtual camera control is presented. It targets applications such as classroom lectures and video conferencing. The proposed method is based on the FlyCam panoramic video system that is designed to produce high resolution and wide-angle video sequences by stitching the video pictures from multiple stationary cameras. The panoramic video sequence is compressed into an MPEG-2 stream for delivery. The prop ...

9 Rendering systems on clusters: Design and implementation of a large-scale hybrid distributed graphics system

Jian Yang, Jiaoying Shi, Zhefan Jin, Hui Zhang

September 2002 **Proceedings of the Fourth Eurographics Workshop on Parallel Graphics and Visualization EGPGV '02****Publisher:** Eurographics AssociationFull text available: [pdf\(237.87 KB\)](#)Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Although modern graphics hardware has strong capability to render millions of triangles within a second, huge scenes are still unable to be rendered in real-time. Lots of parallel and distributed graphics systems are explored to solve this problem. However none of them is built for large-scale graphics applications. We designed AnyGL, a large-scale hybrid distributed graphics system, which consists of four types of logical nodes, Geometry Distributing Node, Geometry Rendering Node, Image Composit ...

**Keywords:** geometry compression, global share, image composition, image compression, large-scale cluster rendering, logical timestamp, memory explosion, parallel rendering, remote graphics, tiled displays, virtual graphics

10 Virtual people & scalable worlds: Efficient compression and delivery of stored motion data for avatar animation in resource constrained devices

Siddhartha Chattopadhyay, Suchendra M. Bhandarkar, Kang Li

November 2005 **Proceedings of the ACM symposium on Virtual reality software and technology VRST '05****Publisher:** ACM PressFull text available: [pdf\(537.78 KB\)](#)Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)


Animation of Virtual Humans (avatars) is done typically using motion data files that are stored on a client or streaming motion data from a server. Several modern applications require avatar animation in mobile networked virtual environments comprising of power constrained clients such as PDAs, Pocket-PCs and notebook PCs operating in battery mode. These applications call for efficient compression of the motion animation data in order to conserve network bandwidth, and save power at the client s ...

**Keywords:** avatar animation, distributed virtual reality, human motion

11 Compression Domain Volume Rendering

Jens Schneider, Rudiger Westermann

October 2003 **Proceedings of the 14th IEEE Visualization 2003 (VIS'03) VIS '03**


**Publisher:** IEEE Computer SocietyFull text available:  [pdf\(1.23 MB\)](#)Additional Information: [full citation](#), [abstract](#)

A survey of graphics developers on the issue of texture mapping hardware for volume rendering would most likely find that the vast majority of them view limited texture memory as one of the most serious drawbacks of an otherwise fine technology. In this paper, we propose a compression scheme for static and time-varying volumetric data sets based on vector quantization that allows us to circumvent this limitation. We describe a hierarchical quantization scheme that is based on a multiresolution c ...

**Keywords:** Volume Rendering, Vector Quantization, Texture Compression, Graphics Hardware

## 12 CamBall: augmented networked table tennis played with real rackets


 Charles Woodward, Petri Honkamaa, Jani Jäppinen, Esa-Pekka Pyökkimies  
September 2004 **Proceedings of the 2004 ACM SIGCHI International Conference on Advances in computer entertainment technology ACE '04**

**Publisher:** ACM PressFull text available:  [pdf\(845.18 KB\)](#)Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

We present a computer system for natural interaction in an augmented virtual environment, enabling people to play table tennis over Internet/LAN with real rackets. No special hardware is required except for the web cameras. The pose of the rackets is computed by marker detection from the image. The players see each other in the camera image, which is streamed real time over the network. The multicast implementation enables a network audience to view the game, too.

**Keywords:** augmented reality, network games, virtual environments


## 13 GPGPU: general purpose computation on graphics hardware

 David Luebke, Mark Harris, Jens Krüger, Tim Purcell, Naga Govindaraju, Ian Buck, Cliff Woolley, Aaron Lefohn  
August 2004 **Proceedings of the conference on SIGGRAPH 2004 course notes GRAPH '04**

**Publisher:** ACM PressFull text available:  [pdf\(63.03 MB\)](#)Additional Information: [full citation](#), [abstract](#)

The graphics processor (GPU) on today's commodity video cards has evolved into an extremely powerful and flexible processor. The latest graphics architectures provide tremendous memory bandwidth and computational horsepower, with fully programmable vertex and pixel processing units that support vector operations up to full IEEE floating point precision. High level languages have emerged for graphics hardware, making this computational power accessible. Architecturally, GPUs are highly parallel s ...

## 14 A video-based rendering acceleration algorithm for interactive walkthroughs

 Andrew Wilson, Ming C. Lin, Boon-Lock Yeo, Minerva Yeung, Dinesh Manocha  
October 2000 **Proceedings of the eighth ACM international conference on Multimedia**

**Publisher:** ACM PressFull text available:  [pdf\(1.10 MB\)](#)Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We present a new approach for faster rendering of large synthetic environments using video-based representations. We decompose the large environment into cells and pre-compute *video based impostors* using MPEG compression to represent sets of objects that are far from each cell. At runtime, we decode the MPEG streams and use rendering algorithms that provide nearly constant-time random access to any frame. The resulting system has been implemented and used for an interactive walkthrough ...

**Keywords:** MPEG video compression, architectural walkthrough, massive models, video-

based impostors, virtual cells

### 15 Fast lossy Internet image transmission



John M. Danskin, Geoffrey M. Davis, Xiyong Song

January 1995 **Proceedings of the third ACM international conference on Multimedia**

**Publisher:** ACM Press

Full text available: [htm\(6.83 KB\)](#) Additional Information: [full citation](#), [citations](#), [index terms](#)

**Keywords:** Internet, World Wide Web, forward error correction, image compression, image transmission, lossy transmission

### 16 Session P9: interactive volume rendering: Texture hardware assisted rendering of time-varying volume data



Eric B. Lum, Kwan Liu Ma, John Clyne

October 2001 **Proceedings of the conference on Visualization '01**

**Publisher:** IEEE Computer Society

Full text available: [pdf\(11.72 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)



[Publisher Site](#)

In this paper we present a hardware-assisted rendering technique coupled with a compression scheme for the interactive visual exploration of time-varying scalar volume data. A palette-based decoding technique and an adaptive bit allocation scheme are developed to fully utilize the texturing capability of a commodity 3-D graphics card. Using a single PC equipped with a modest amount of memory, a texture capable graphics card, and an inexpensive disk array, we are able to render hundreds of time s ...

**Keywords:** PC, compression, high performance computing, out-of-core processing, scientific visualization, texture hardware, time-varying data, transform encoding, volume rendering

### 17 A real-time low-latency hardware light-field renderer



Matthew J. P. Regan, Gavin S. P. Miller, Steven M. Rubin, Chris Kogelnik

July 1999 **Proceedings of the 26th annual conference on Computer graphics and interactive techniques**

**Publisher:** ACM Press/Addison-Wesley Publishing Co.

Full text available: [pdf\(2.63 MB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

### 18 QuickTime VR: an image-based approach to virtual environment navigation



Shenchang Eric Chen

September 1995 **Proceedings of the 22nd annual conference on Computer graphics and interactive techniques**

**Publisher:** ACM Press

Full text available: [pdf\(347.59 KB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

**Keywords:** environment maps, image registration, image warping, panoramic images, real-time display, view interpolation, virtual reality

### 19 High dynamic range imaging



Paul Debevec, Erik Reinhard, Greg Ward, Sumanta Pattanaik

August 2004 **Proceedings of the conference on SIGGRAPH 2004 course notes GRAPH**

'04

**Publisher:** ACM PressFull text available: [pdf\(20.22 MB\)](#) Additional Information: [full citation](#), [abstract](#)

Current display devices can display only a limited range of contrast and colors, which is one of the main reasons that most image acquisition, processing, and display techniques use no more than eight bits per color channel. This course outlines recent advances in high-dynamic-range imaging, from capture to display, that remove this restriction, thereby enabling images to represent the color gamut and dynamic range of the original scene rather than the limited subspace imposed by current monitor ...

**20** Hardware: A hardware architecture for multi-resolution volume rendering

G. Wetekam, D. Staneker, U. Kanus, M. Wand

July 2005 **Proceedings of the ACM SIGGRAPH/EUROGRAPHICS conference on Graphics hardware HWWS '05****Publisher:** ACM PressFull text available: [pdf\(478.46 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)


In this paper we propose a hardware accelerated ray-casting architecture for multi-resolution volumetric datasets. The architecture is targeted at rendering very large datasets with limited voxel memory resources for both cases where the working set of a frame does or does not fit into the voxel memory. We describe the multi-resolution model used to organize the volume data, especially the wavelet based compression scheme. An efficient hardware implementation of the wavelet decompression is pres ...

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3. The fractals in Fractal **Image Compression** are Iterated Function Systems. 4. It is a form of Vector **Quantization**, one that employs a **virtual** codebook. 5. ...

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IEEE JNL IEEE Journal or  
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IEE JNL IEE Journal or Magazine

IEEE CNF IEEE Conference  
ProceedingIEE CNF IEE Conference  
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IEEE STD IEEE Standard








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